AXIOMTEK

GOT815-834

15” XGA TFT
Touch Panel Computer

User’s Manual

IP69K certification distinguishes the highest level of reliability

RoHS

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Safety Precautions

Before getting started, please read the following important safety precautions.

1. The GOT815-834 does not come equipped with an operating system. An operating system must be loaded first before installing any software into the computer.
2. Be sure to ground yourself to prevent static charge when installing the internal components. Use a grounding wrist strap and place all electronic components in any static-shielded devices. Most electronic components are sensitive to static electrical charge.
3. Disconnect the power cord from the GOT815-834 before any installation. Be sure both the system and external devices are turned OFF. A sudden surge of power could ruin sensitive components that the GOT815-834 must be properly grounded.
4. The brightness of the flat panel display will be getting weaker as a result of frequent usage. However, the operating period varies depending on the application environment.
5. Turn OFF the system power before cleaning. Clean the system using a cloth only. Do not spray any liquid cleaner directly onto the screen. The GOT815-834 may come with or w/o a touchscreen. Although the touchscreen is chemical resistant, it is recommended that you spray the liquid cleaner on a cloth first before wiping the screen. In case your system comes without the touchscreen, you must follow the same procedure and not spray any cleaner on the flat panel directly.
6. Avoid using sharp objects to operate the touchscreen. Scratches on the touchscreen may cause malfunction or internal failure to the touchscreen.
7. The flat panel display is not susceptible to shock or vibration. When assembling the GOT815-834, make sure it is securely installed.
8. Do not open the system's back cover. If opening the cover for maintenance is a must, only a trained technician is allowed to do so. Integrated circuits on computer boards are sensitive to static electricity. To avoid damaging chips from electrostatic discharge, observe the following precautions:
   - Before handling a board or integrated circuit, touch an unpainted portion of the system unit chassis for a few seconds. This will help to discharge any static electricity on your body.
   - When handling boards and components, wear a wrist-grounding strap, available from most electronic component stores.

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CHAPTER 1
Introduction

This chapter contains general information and detailed specifications of the GOT815-834. Chapter 1 includes the following sections:

- General Description
- Specification
- Dimensions
- I/O Outlets
- Package List

1.1 General Description

The GOT815-834 is a fan-less and compact-size touch panel computer, equipped with a 15" XGA TFT LCD display and low power consumption Intel® Atom™ E3827 1.75GHz processor. The GOT815-834 supports Windows® 7, Windows® CE.NET and Windows® embedded OSs. The panel computer is able to install a CFast™ and provided a Mini card slot for extension such as WIFI. Its excellent ID and friendly user interface make it a professional yet easy-to-use panel computer. The GOT815-834 is an ideal for space-limited applications in food and beverage industry.

- **GOT815-834: 15" TFT XGA Fanless Touch Panel Computer**
  - Reliable and Stable Design

    The GOT815-834 adopts a fanless cooling system and a CFast™, which makes it suitable for vibration environments.
  - Embedded O.S. Supported

    The GOT815-834 not only supports Windows® 7 and Windows® 8/8.1,, but also supports embedded OS, such as Windows® CE.NET, and Windows® 7/8/8.1 embedded. For storage device, the GOT815-834 supports CFast™ or mSATA and 2.5" SSD device.
  - Industrial-grade Product Design

    The GOT815-834 has an incredible design to be used in different industrial environments.
- **The whole enclasure meets the IP66 standard.**
- **For connecting other devices, the GOT815-834 also features several interfaces: USB, Ethernet, and RS-232/422/485.**

1.2 Specifications

1.2.1 Main CPU Board

- **CPU**
  - Intel® Atom™ E3827 1.75GHz processor onboard
- **System Memory**
  - One 204-pin DDR3L(1.35V) SO-DIMM socket
  - Maximum memory up to 8GB
- **BIOS**
  - America Megatrends BIOS

1.2.2 I/O System

- **Standard I/O**
  - 2 x RS-232/422/485(default RS-232)
  - 4 x USB 2.0 (M12 connector)
- **Ethernet**
  - 1 x Intel I210IT Gigabit Ethernet
- **Expansion**
  - 2 x Mini PCI-E card
- **Storage**
  - 1 x CFast slot or mSATA
  - 1 x SATA interface

1.2.3 System Specification

- **12.1" TFT LCD**
  - 15" XGA 420nits
- **Heat Dispensing Design**
- **Disk drive housing**
  - One 2.5" SATA drive (optional)
- **Net Weight**
  - 5.2Kgs (11.46 lb)
- **Dimension (Main Body Size)**
  - 382mm x 305mm x 55mm
- **Operation Temperature**
  - -20℃ to 55℃
- **Relative Humidity**
  - 10% to 90% @ 40℃, Non-Condensing
- **Vibration**
  - 5 to 500 Hz, 2.0 G for CFast or mSATA
  - 5 to 500 Hz, 2.0 G for SSD

Note

1. All specifications and images are subject to change without notice.

2. The GOT815-834 is suited on serious environment; please choose the wide temperature DRAM and SSD.

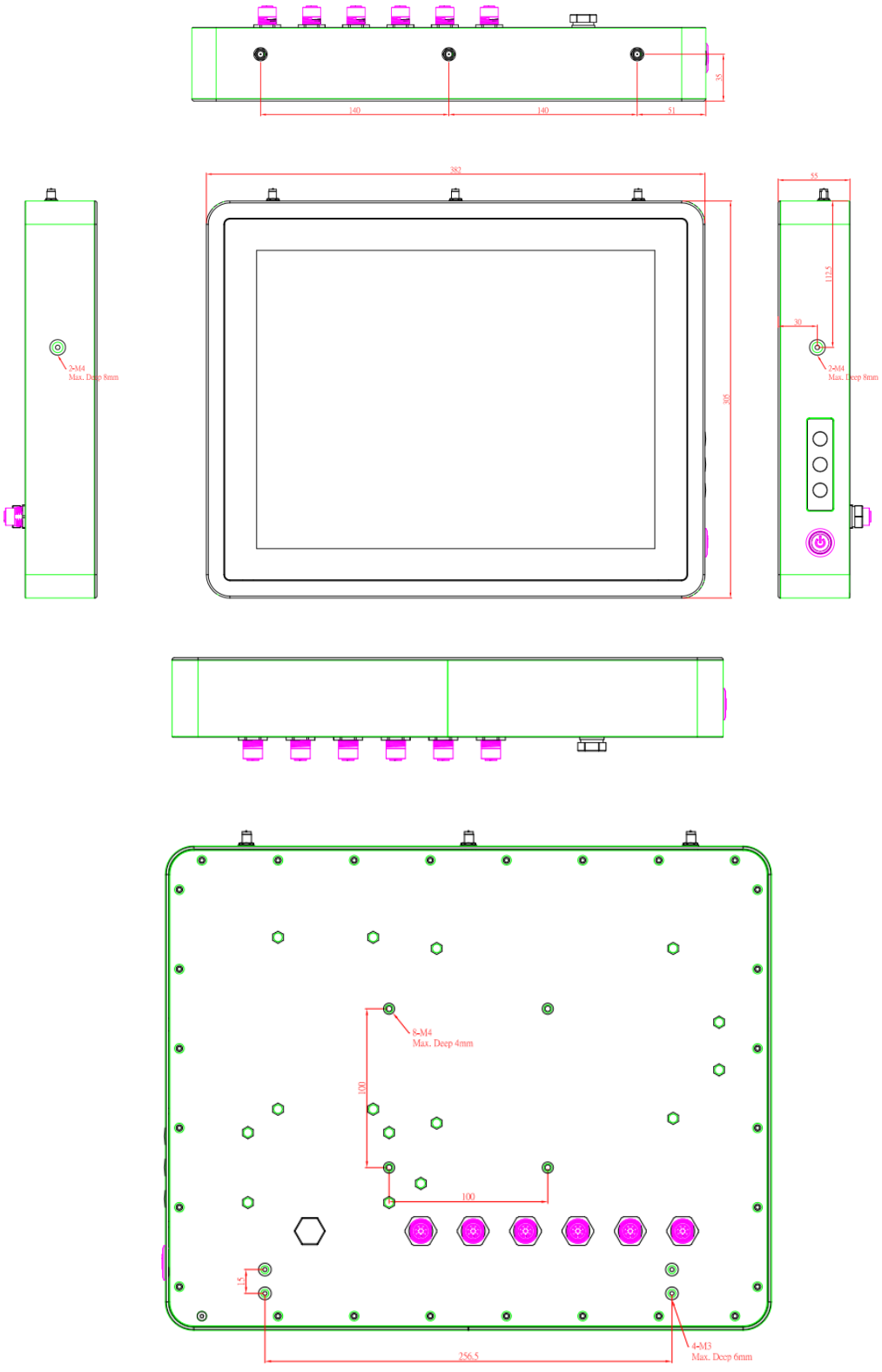
3. If the operation temperature is higher than 35℃, the wide temperature HDD is recommended to be used on the device.

4. If the operation temperature is higher than 45℃, the wide temperature CFast and SSD are recommended to be used on the device.

Warning: According the warrantee is adopt for the IP66 guarantee, please choose CFast,SSD and RAM by Axiomtek, also please kindly don't disassemble the system by youself.

1.3 Dimensions

This diagram shows you dimensions and outlines of the GOT815-834.



1.4 I/O Outlets

Please refer to the following illustration for I/O locations of the GOT815-834.

No	Function
1	Backlight ON/OFF
2	Brightness Adjust
3	Power Switch(ATX)
4	DC power connector
5	COM1(configure RS422/485, default RS-232)
6	COM2(configure RS422/485, default RS-232)
7	Ethernet
8	USB2.0 x 2
9	USB2.0 x 2

1.5 Package List

When you receive the GOT815-834, the bundled package should contain the following items:

- **GOT815-834 x 1**
- **Driver CD x1**
- **DC cable x1**
- **Power Adapter (optional)**
- **Water-proof Power / USB / LAN / RS-232 cables (optional)**
- **VESA ARM(optional)**

If you can not find the package or any items are missing, please contact Axiomtek distributors immediately.

CHAPTER 2
System Configurations

The GOT815-834 provides rich I/O ports and flexible expansions for you to meet different demand, for example, CF. The chapter will show you how to install the hardware. It includes:

- I/O Pin Assignment
- Hard Disk and DRAM
- Wireless LAN Card (Optional)
- Water-proof cables (Optional)
- Hanging and VESA mounting (Optional)

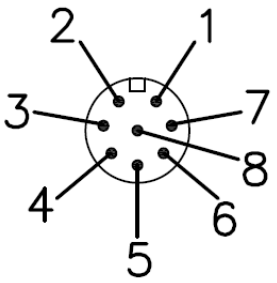
2.1 I/O Pin Assignment

The GOT815-834 has two serial ports, COM1 and COM2 (RS-232/422/485, default RS-232) , Ethernet, USB, and DC-in 9~36V connecter.

2.1.1 Serial Port Interface

The following table shows you the pin assignments of this connector:

Pin	RS-232	RS-422	RS-485
1	DCD	TX-	Data-
2	RXD	TX+	Data+
3	TXD	RX+	No use
4	DTR	RX-	No use
	GND	GND	GND
5	DSR	No use	No use
6	RTS	No use	No use
7	CTS	No use	No use
8	RI	No use	No use



Each port +5V Maximum: 2A, +12V Maximum: 1A.

Note

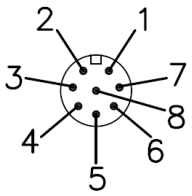
Warning: According the warrantee is adopt for the IP66 guarantee, please inform the COM1 setting when ordering, also please kindly don't disassemble the system by youself.

2.1.2 Ethernet

The GOT815-834 is equipped with a high performance Plug and Play Ethernet interface, full compliant with IEEE 802.3 standard, and can be connected with a M12 LAN connector.

Please refer to detailed pin assignment list below:

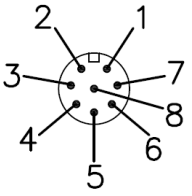
Pin	Signal	Pin	Signal
L1	MDI0P	L5	MDI2P
L2	MDI0N	L6	MDI2N
L3	MDI1P	L7	MDI3P
L4	MDI1N	L8	MDI3N



2.1.3 USB Port

The USB is a Universal Serial Bus (compliant with USB 2.0 (480Mbps)) connector on the rear I/O. It is commonly used for installing USB peripherals such as keyboard, mouse, scanner, etc.

Pin	Signal	Pin	Signal
1	USB VCC (+5V level)	5	USB VCC (+5V level)
2	USB #0_D-	6	USB #1_D-
3	USB #0_D+	7	USB #1_D+
4	GND	8	GND



2.1.4 DC Power Jack w/ M12 connector

Pin	Signal
1	+9~36V
2	+9~36v
3	GND
4	GND
5	Earth Gound

2.2 Water-proof Cables

GOT-800 series uses specific M12 connector for water-proof. Therefore you will order each cable base on application.

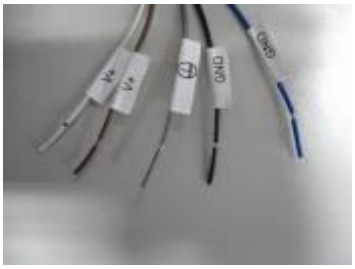
There are four kind cables of GOT815, by the optional, if you will apply the USB, COM or Etherent then you can select a cable for the package.

The Power cable included in the accessory box, when you will need the power adapter, also it can be sesected by optional.

2.2.1 Power cable

Please follow pin assignement for the power input.

Pin	Signal
V+	DC 9~36V power input
⏚	Earth Ground
GND	GND
GND	GND



2.2.2 Power adapter for GOT815-834

If you order the power adapter, you should choose the power cord type for your location. The power adapter is +24VDC(70W), 110-240V which is combined M12 connector.

2.2.3 COM

There are two COM cables which are combined M12 connector. Also, you can refer 2.1.1 for the Series port pin assignement.

2.2.4 USB cables

The USB cable is combined M12 connector for water-proof. It is extended two USB ports for applicaton.

2.3 Mounting Method

There are two mounting ways for the GOT815-834. One is suspension, the other is VESA mount.

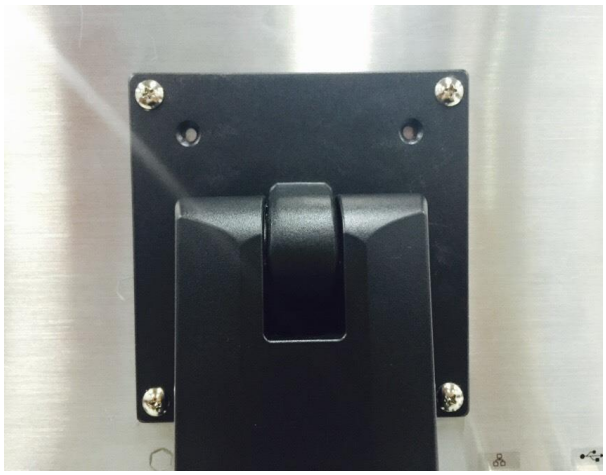
2.3.1 VESA mounting

The GOT815 can accept VESA 100.

2.3.2 VESA-ARM Mounting

Step 1 Find out the 4 screws as marked on the back side of chassis.

Step 2 Assemble the VESA-ARM to the back side of the chassis, and fix the screws.



Step 3 VESA mounting Installation completed.

CHAPTER 3
AMI BIOS Setup Utility

This chapter provides users with detailed description how to set up basic system configuration through the AMIBIOS8 BIOS setup utility.

3.1 Navigation Keys

The BIOS setup/utility uses a key-based navigation system called hot keys. Most of the BIOS setup utility hot keys can be used at any time during the setup navigation process.

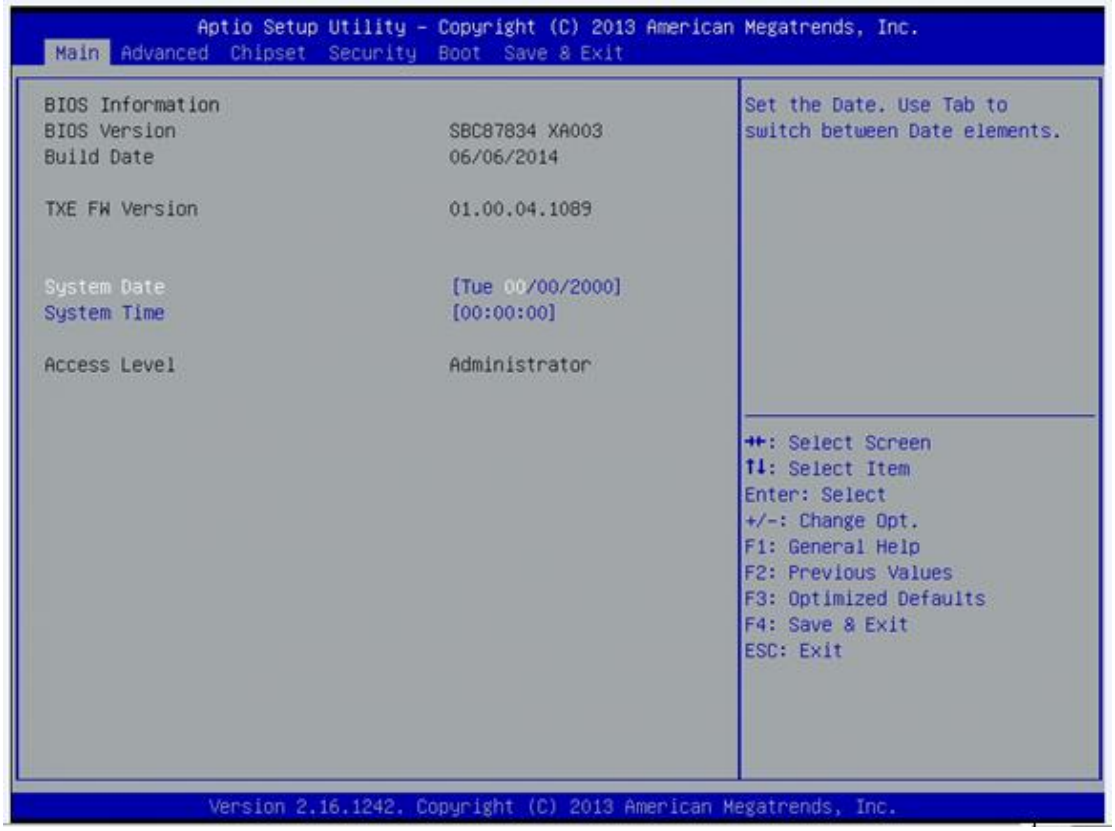
These keys include <F1>, <F2>, <F3>, <F4>, <Enter>, <ESC>, <Arrow> keys, and so on.

Some of navigation keys differ from one screen to another.

Note

← Left/Right	The Left and Right <Arrow> keys allow you to select a setup screen.
↑↓ Up/Down	The Up and Down <Arrow> keys allow you to select a setup screen or sub-screen.
+– Plus/Minus	The Plus and Minus <Arrow> keys allow you to change the field value of a particular setup item.
Tab	The <Tab> key allows you to select setup fields.
F1	The <F1> key allows you to display the General Help screen.
F2	The <F2> key allows you to load previous value
F3	The <F3> key allows you to Load Optimized Defaults.
F4	The <F4> key allows you to save any changes you have made and exit Setup. Press the <F4> key to save your changes.
Esc	The <Esc> key allows you to discard any changes you have made and exit the Setup. Press the <Esc> key to exit the setup without saving your changes.
Enter	The <Enter> key allows you to display or change the setup option listed for a particular setup item. The <Enter> key can also allow you to display the setup sub- screens.

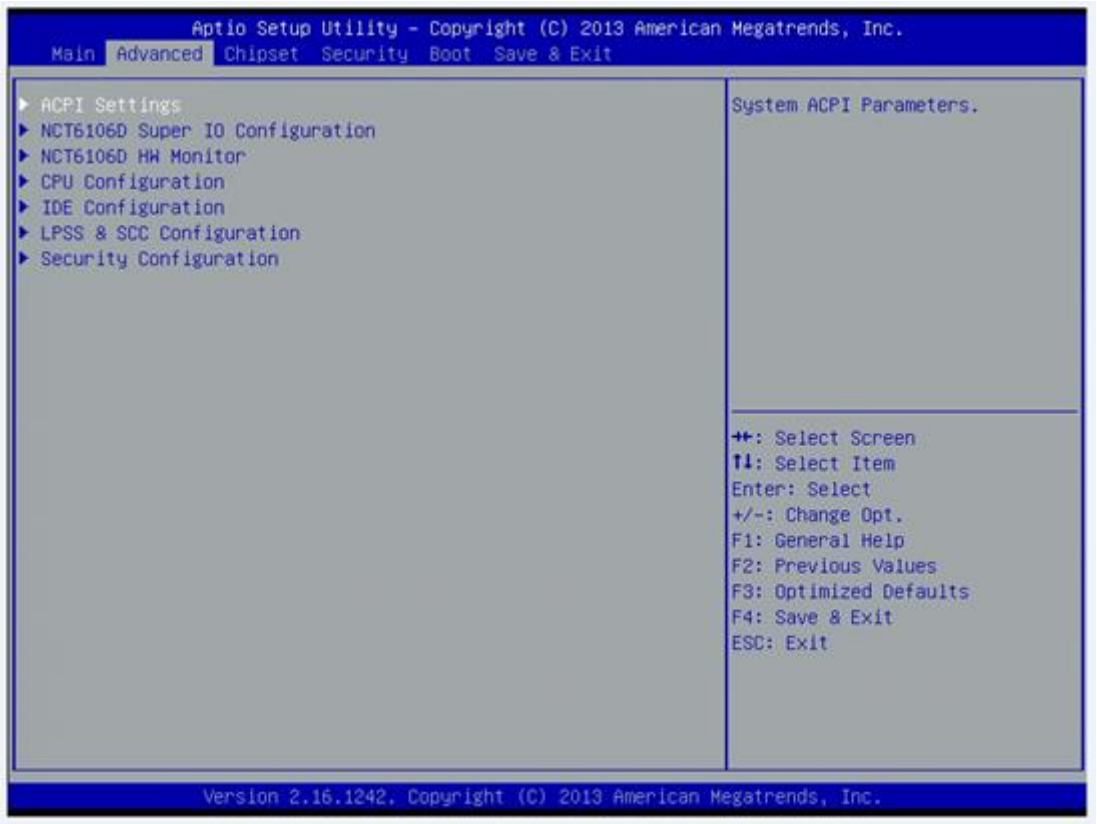
3.2 Main Menu


Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc.
Main Advanced Chipset Security Boot Save & Exit
BIOS Information
BIOS Version SBC87834 XA003
Build Date 06/06/2014
TXE FW Version 01.00.04.1089
System Date [Tue 00/00/2000]
System Time [00:00:00]
Access Level Administrator
Set the Date. Use Tab to switch between Date elements.
→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.

System Time/Date

Use this option to change the system time and date. Highlight *System Time* or *System Date* using the <Arrow> keys. Enter new values through the keyboard. Press the <Tab> key or the <Arrow> keys to move between fields. The date must be entered in MM/DD/YY format. The time is entered in HH:MM:SS format.

3.3 Advanced Menu



The Advanced menu allows users to set configuration of the CPU and other system devices. You can select any of the items in the left frame of the screen to go to the sub menus:

- ACPI Settings
- NCT6106D Super IO Configuration
- NCT6106D H/W Monitor
- CPU Configuration
- IDE Configuration
- LPSS & SCC Configuration
- Security Configuration

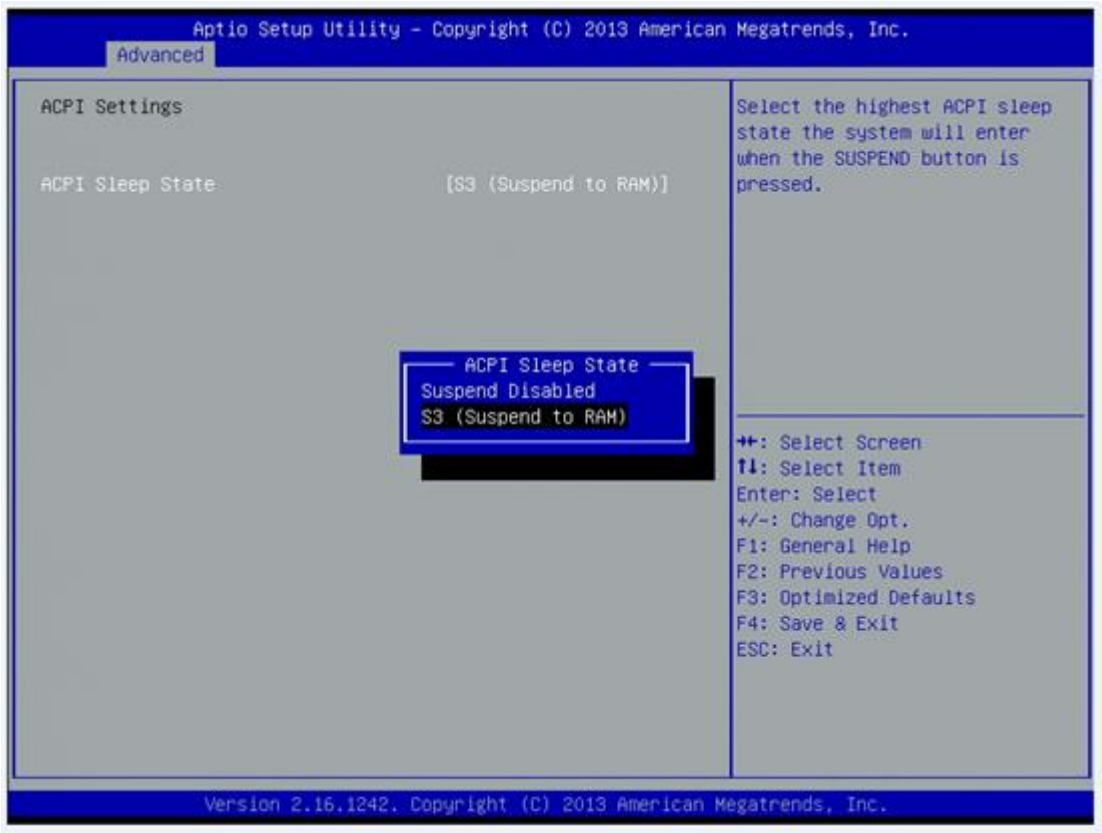
For items marked with "►", please press <Enter> for more options.'

- **ACPI Settings**

You can use this screen to select options for the ACPI Configuration, and change the value of the selected option. A description of the selected item appears on the right side of the screen.

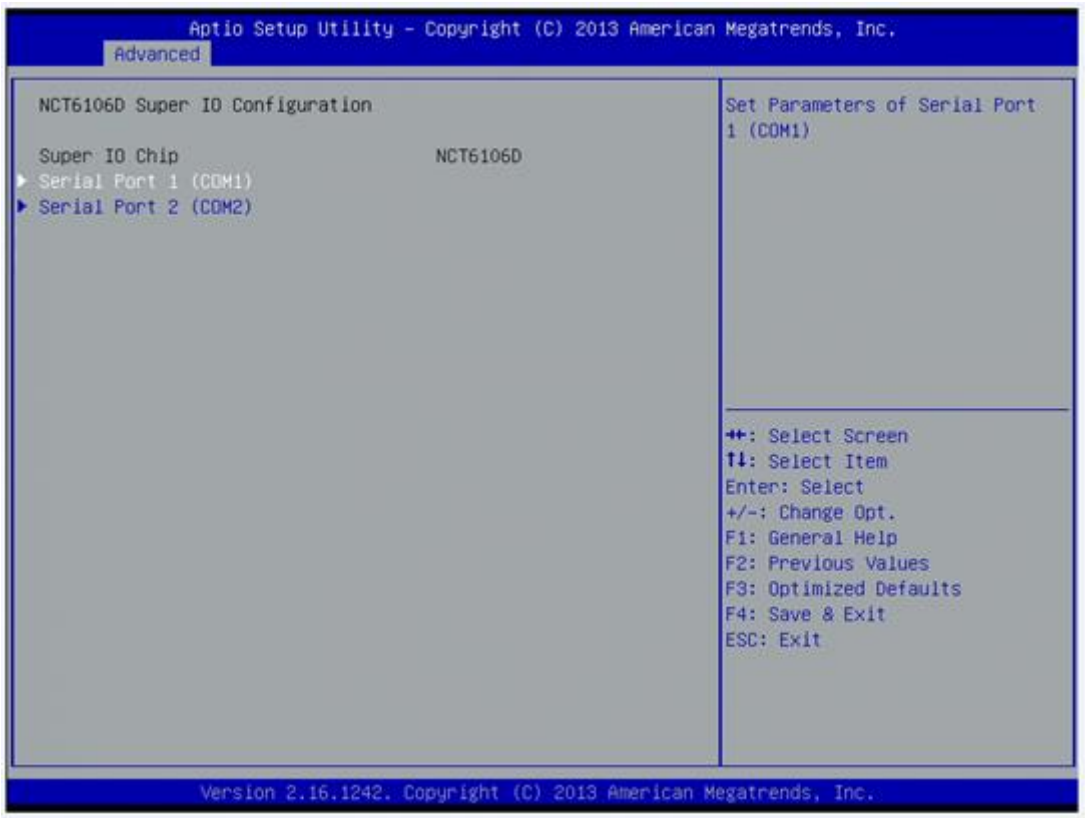
ACPI Sleep State

Allow you to select the Advanced Configuration and Power Interface (ACPI) state to be used for system suspend. Here are the options for your selection, Suspend disable and S3 (Suspend to RAM).


Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc.
Advanced
ACPI Settings
ACPI Sleep State [S3 (Suspend to RAM)]
Select the highest ACPI sleep state the system will enter when the SUSPEND button is pressed.
ACPI Sleep State
Suspend Disabled
S3 (Suspend to RAM)
→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.

- **NCT6106D Super IO Configuration**

Use this screen to select options for the Super IO Configuration, and change the value of the selected option


Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc.
Advanced
NCT6106D Super IO Configuration
Super IO Chip NCT6106D
Serial Port 1 (COM1)
Serial Port 2 (COM2)
Set Parameters of Serial Port 1 (COM1)
→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.

Serial Port 1-2configuration

Serial port:

This option used to enable or disable the serial port.

Device Setting:

This item specifies the base I/O port address and Interrupt Request address of serial port.

The port 0 Optimal setting is *3F8/IRQ4*.

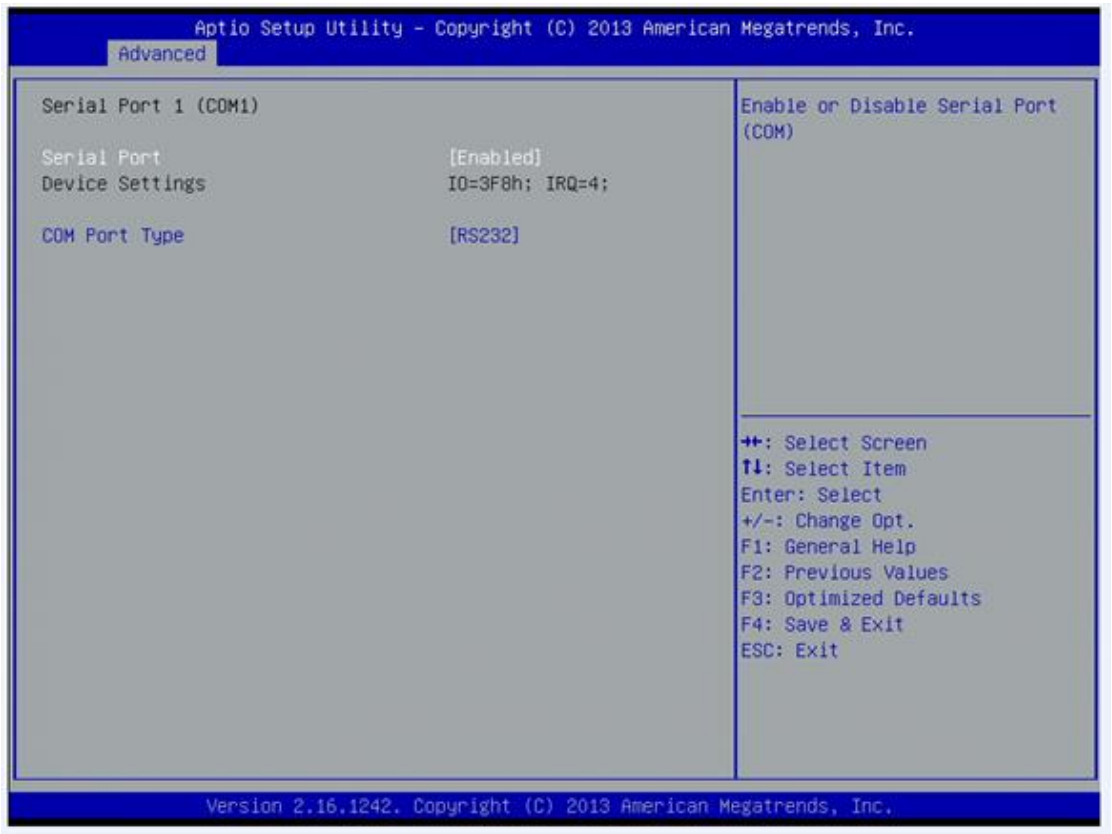
The port 1 Optimal setting is *2F8/IRQ3.*

The port 2 Optimal setting is *3E8/IRQ7*

The port 3 Optimal setting is *2E8/IRQ5*.

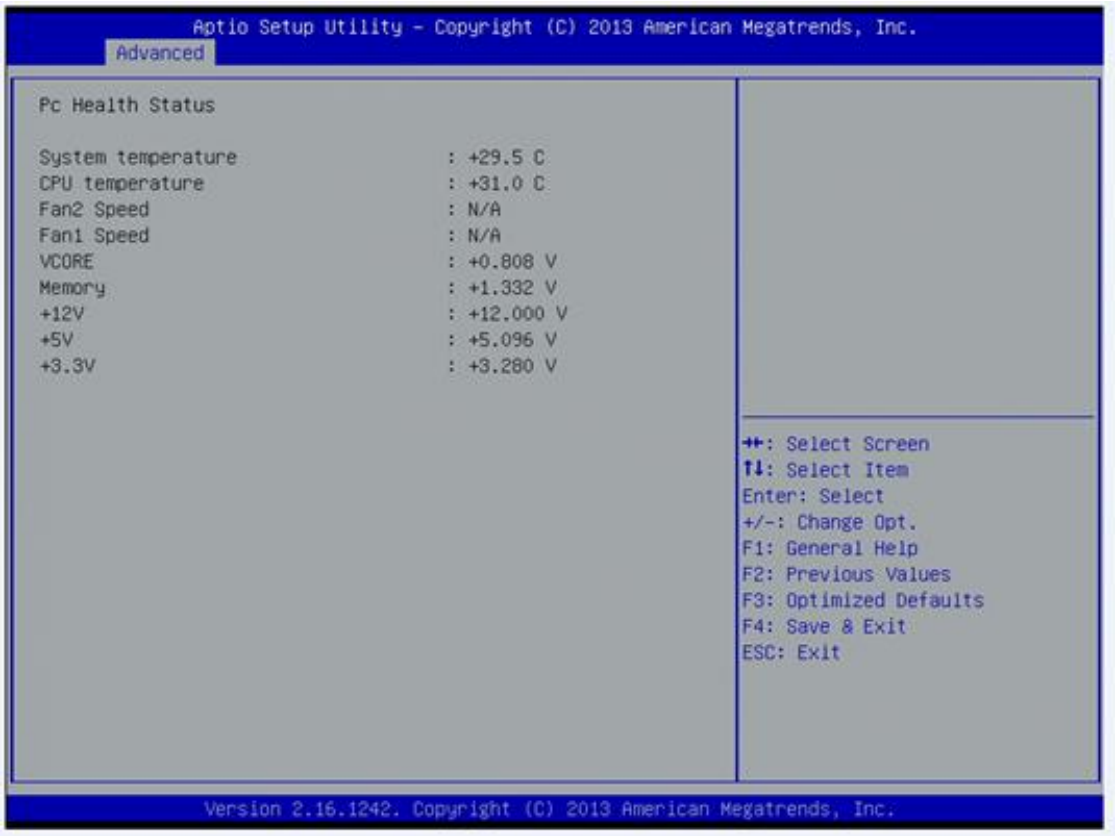
- **Serial type**

This option used to select RS232/422/485 function.



- **NCT6106D H/W Monitor**

This screen shows the Hardware Health Configuration.



- **CPU Configuration**

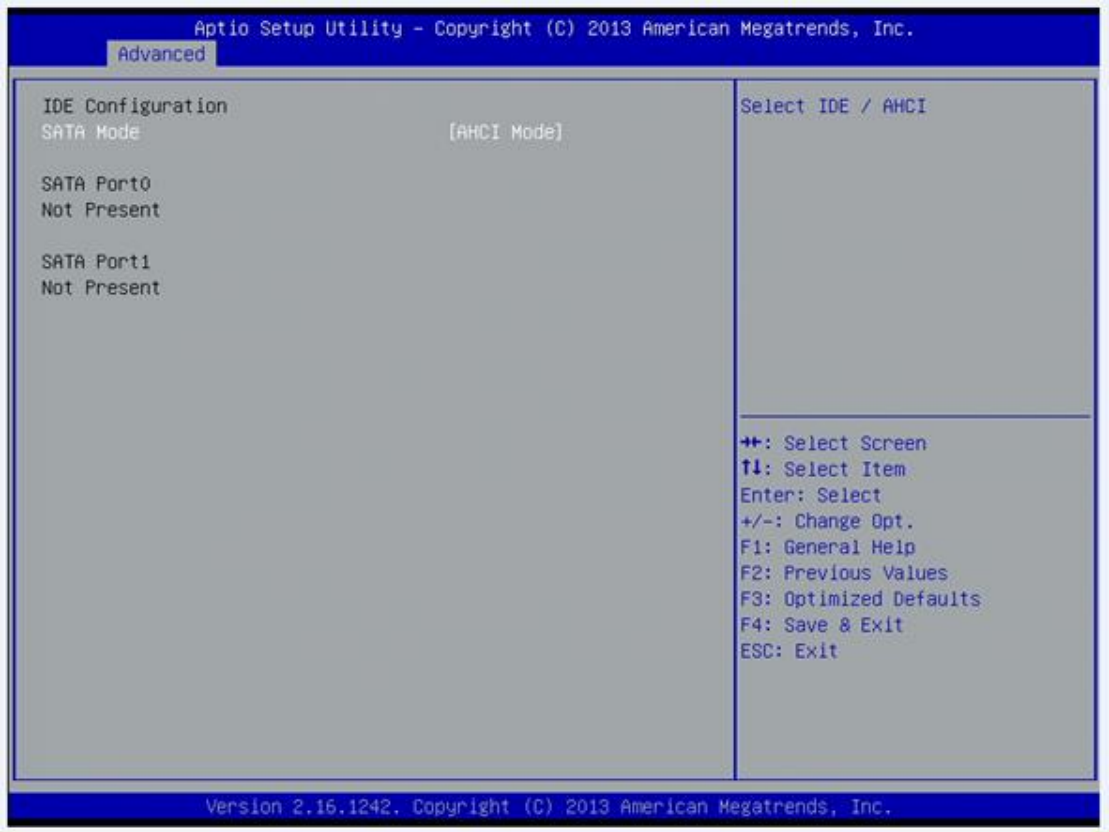
This screen shows the CPU Configuration and Intel virtualization technology enable/disable selected

- **IDE Configuration**

You can use this screen to select options for the SATA Configuration, and change the value of the selected option.

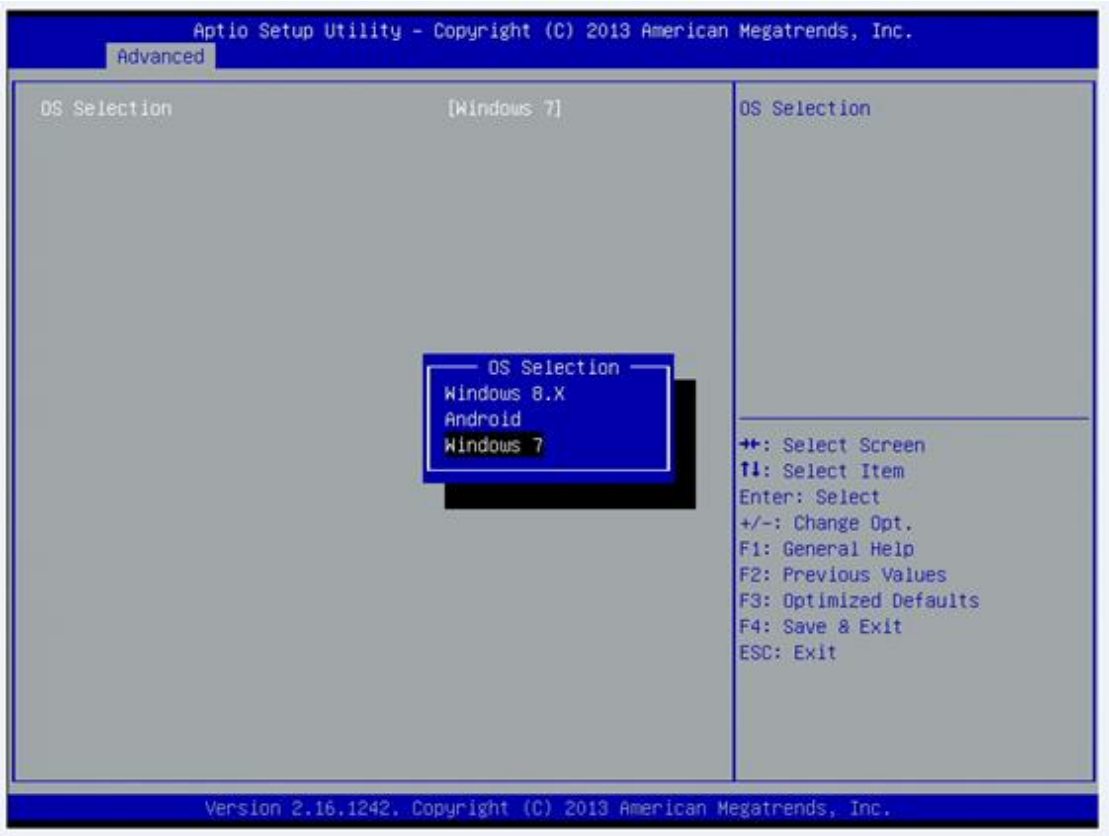
- **SATA Mode**

Use this item to choose the SATA operation mode. Here are the options for your selection, IDE Mode, AHCI Mode.



- **LPSS & SCC Configuration**

You can select any of the items in the frame of the screen to change the OS, the default setting is Win 7.



Please be informed to select the Windows 8.x when installing Win 8 or Win 8.1.

If using the Android OS, please refer to https://01.org/android-ia**.**

- **Intel TXE Configuration**

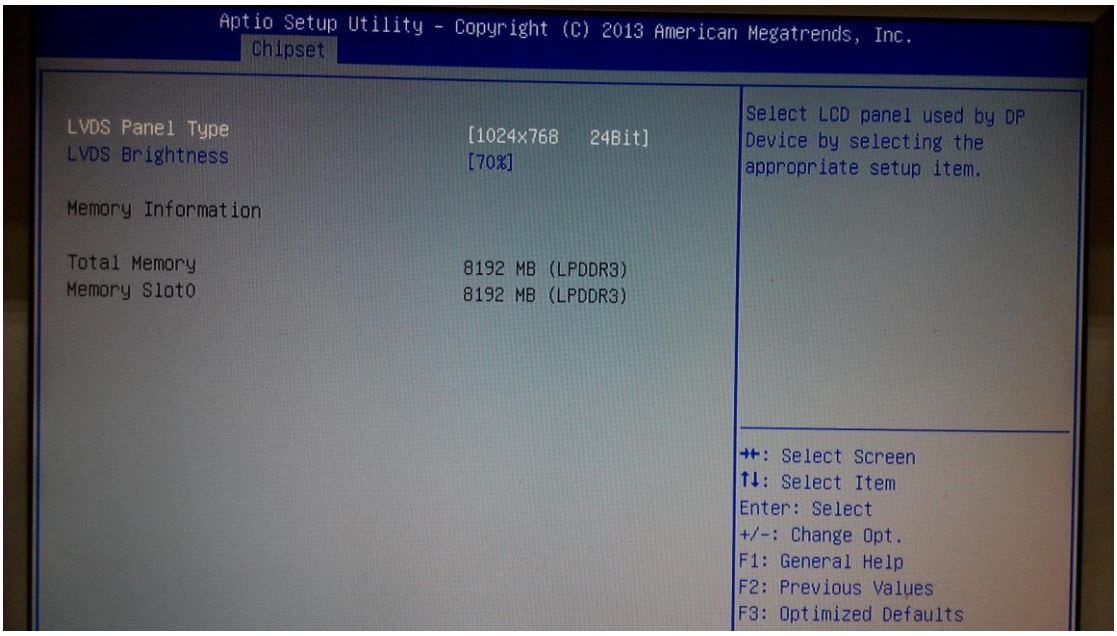
The Advanced menu allows users to update the TXE firmware.

3.4 Chipset Menu

The Chipset menu allows users to change the advanced chipset settings.

- **North Bridge**

This screen shows the North Bridge memory information.

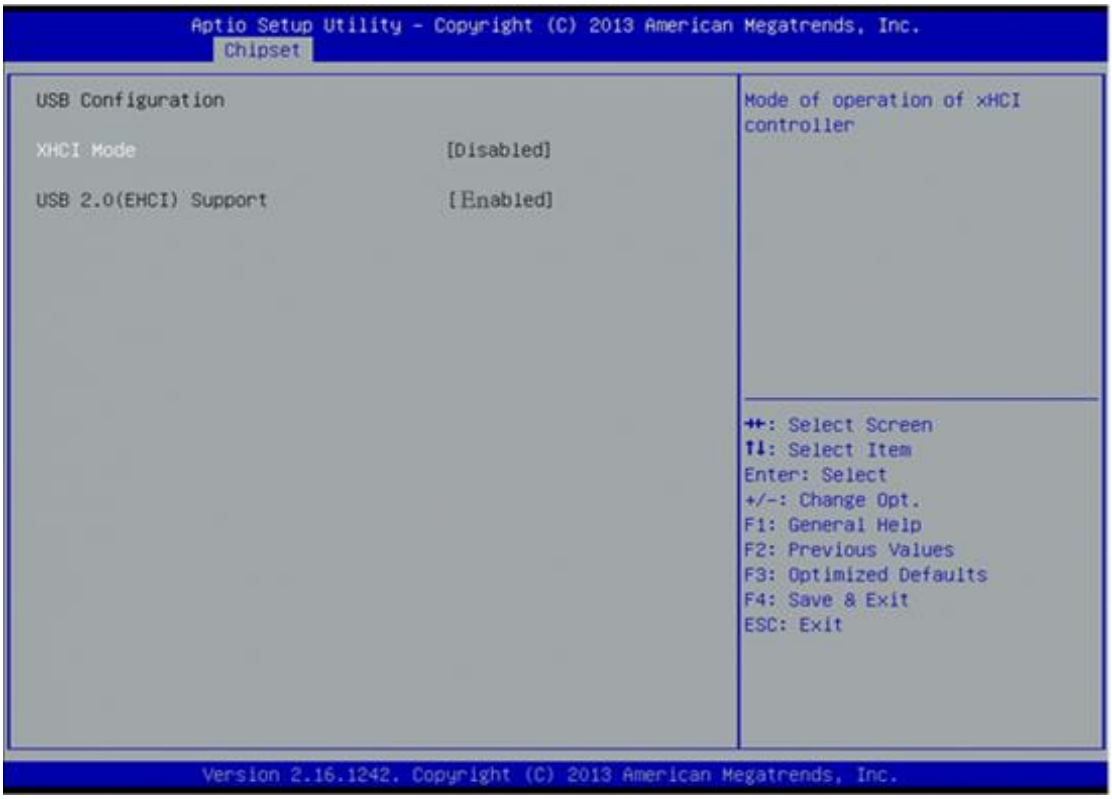

Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc.
Chipset
LVDS Panel Type [1024x768 24Bit]
LVDS Brightness [70%]
Memory Information
Total Memory 8192 MB (LPDDR3)
Memory Slot0 8192 MB (LPDDR3)
Select LCD panel used by DP Device by selecting the appropriate setup item.
→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults

- **South Bridge**

- **USB Configuration**

You can use this screen to select options for the USB Configuration.

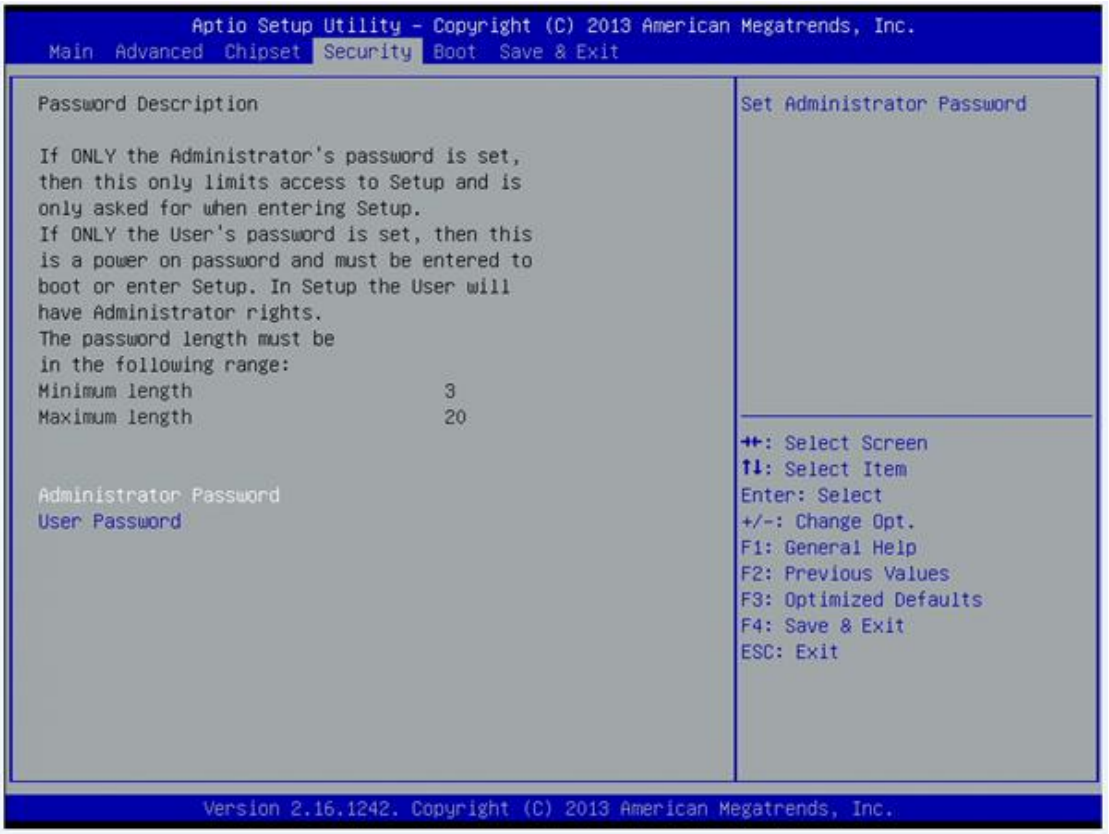
If USB3.0 function used, XHCI Mode must disable and EHCI must enable.



Suggest that don't adjust the items if not necessary.

Note

3.5 Security


Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc.
Main Advanced Chipset Security Boot Save & Exit
Password Description
If ONLY the Administrator's password is set, then this only limits access to Setup and is only asked for when entering Setup.
If ONLY the User's password is set, then this is a power on password and must be entered to boot or enter Setup. In Setup the User will have Administrator rights.
The password length must be in the following range:
Minimum length 3
Maximum length 20
Administrator Password
User Password
Set Administrator Password
→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit
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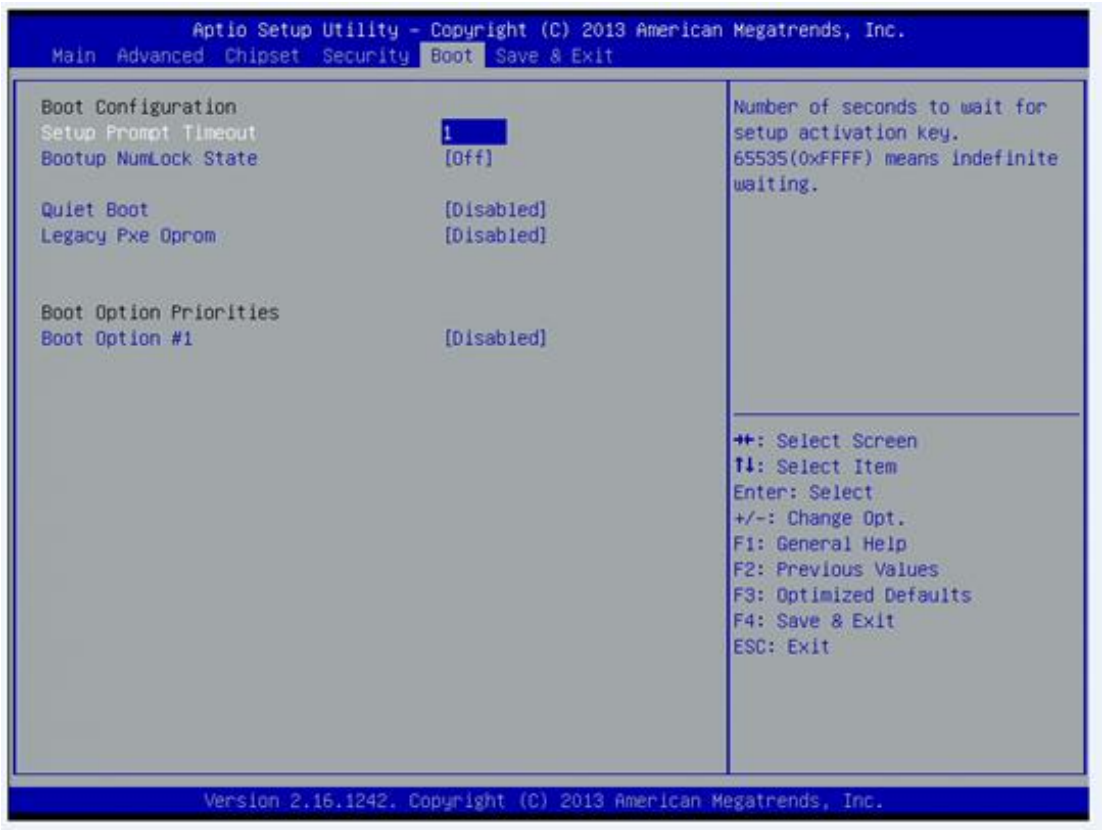
3.6 Boot Menu

The Boot menu allows users to change boot options of the system. You can select any of the items in the left frame of the screen to go to the sub menus:



Setup Prompt Timeout

Set the Timeout for wait press key to enter Setup Menu.

Bootup NumLock State

Use this item to select the power-on state for the NumLock. The default setting is on.

Quiet Boot

Use this item to enable or disable the Quite Boot state. The default setting is disable.

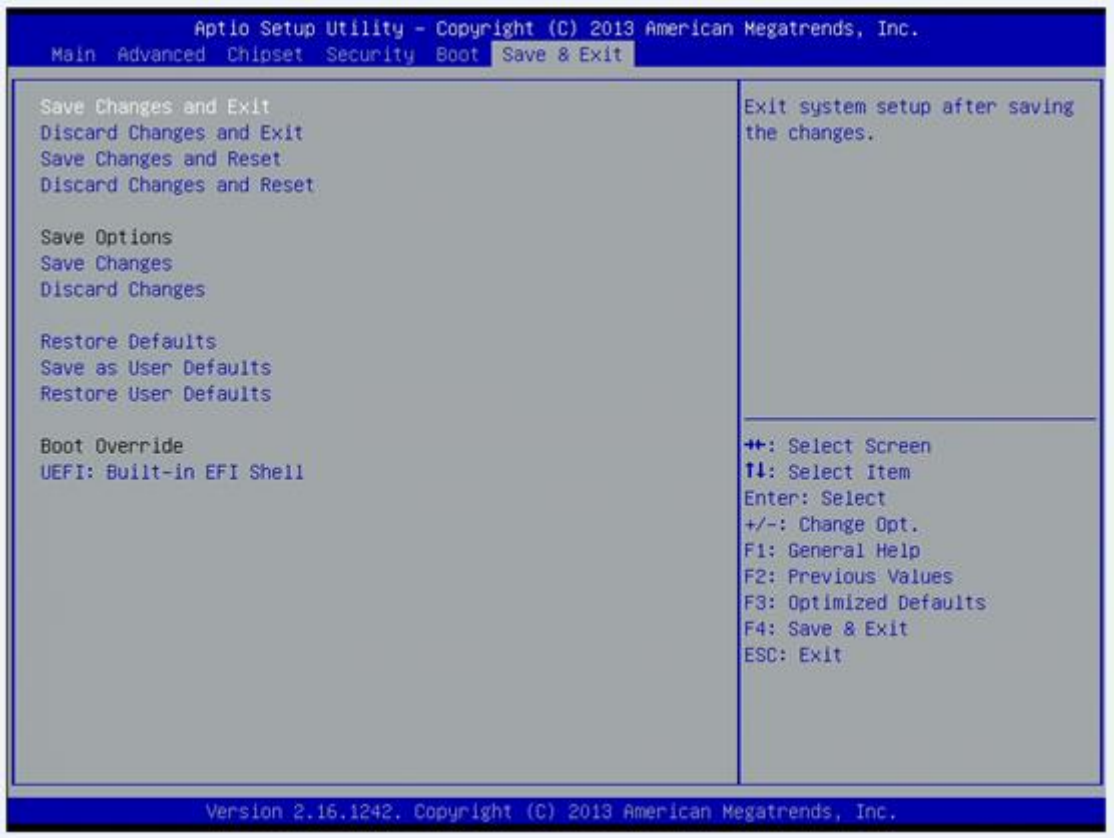
Legacy Pxe OPROM

Use this item to enable or disable the Preboot Execution Environment. The default setting is disable.

Boot Option Priorities

Specifies the overall boot order from the available devices.

3.7 Save&Exit


Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc.
Main Advanced Chipset Security Boot Save & Exit
Save Changes and Exit
Discard Changes and Exit
Save Changes and Reset
Discard Changes and Reset
Save Options
Save Changes
Discard Changes
Restore Defaults
Save as User Defaults
Restore User Defaults
Boot Override
UEFI: Built-in EFI Shell
Exit system setup after saving the changes.
→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit
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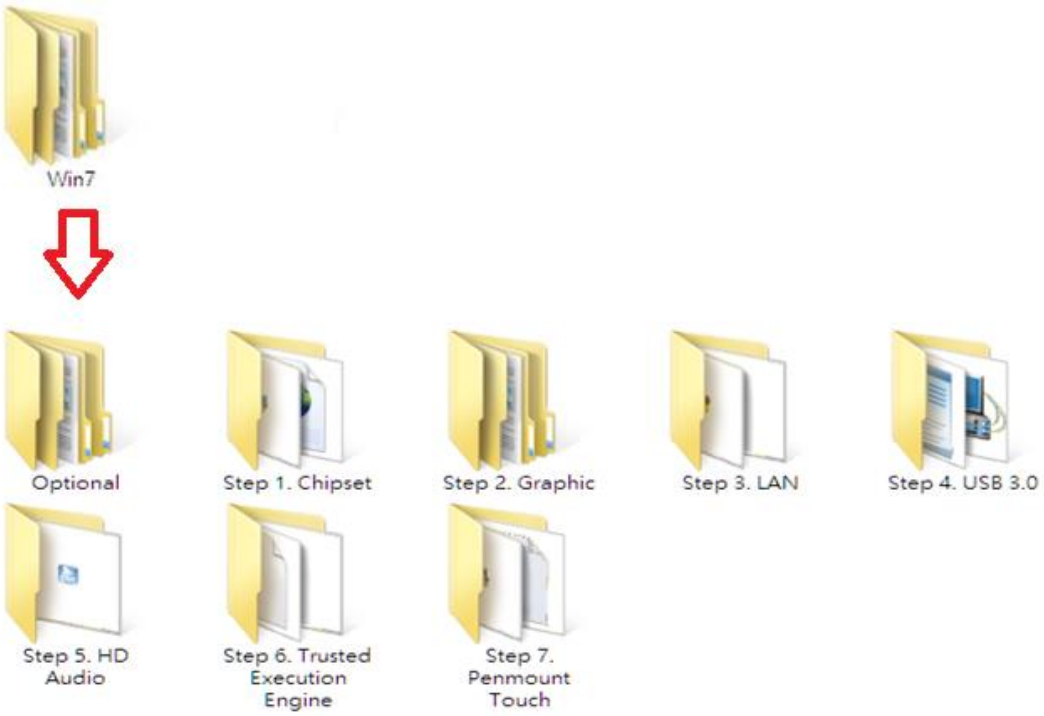
CHAPTER 4
Drivers Installation

4.1 System

GOT815-834 supports Windows 7, Windows 8/8.1 ,WES 7 and WE8S. To facilitate the installation of system driver, please carefully read the instructions in this chapter before start installing.

4.1.1 Win 7

1. Insert Driver CD and select the "\Drivers".



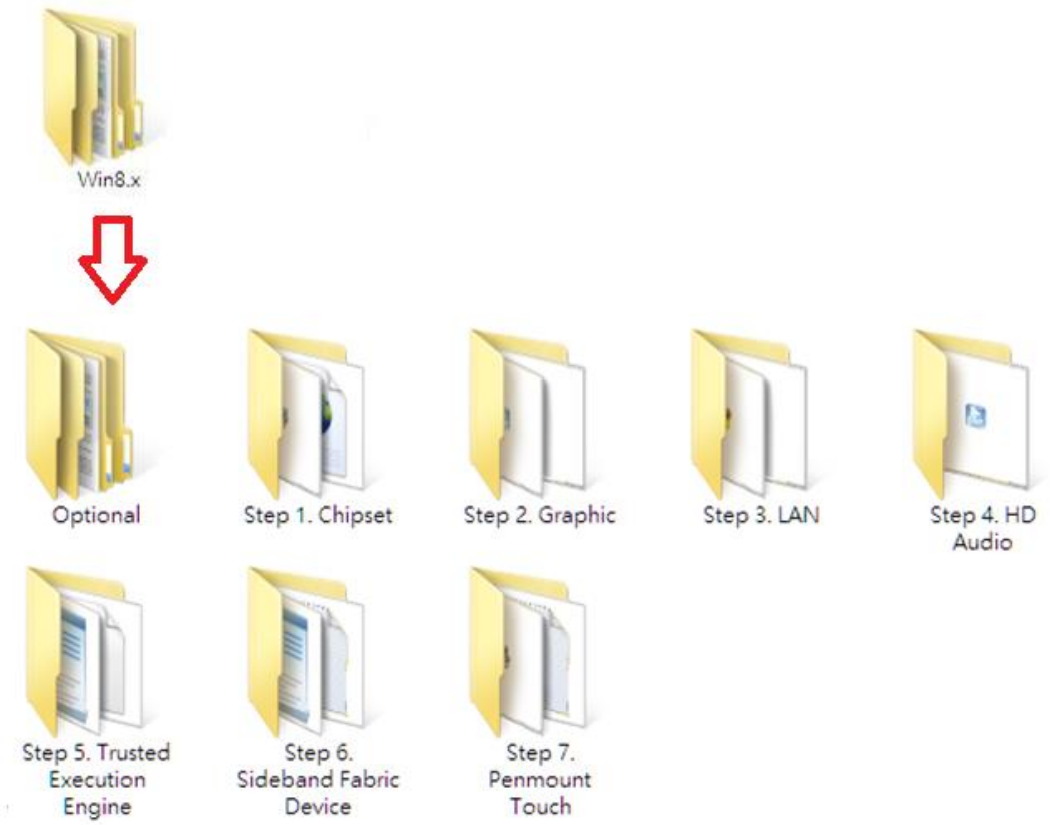
2. Select all files and follow the installing procedure.

Note

If you didn't install graphics driver, it only can be resumed via VGA display when VGA and DP go to sleep mode.

4.1.2 Win 8/8.x

1. Insert Driver CD and select the "\Drivers".



2. Select all files and follow the installing procedure.

Note

If you didn't install graphics driver, it only can be resumed via VGA display when VGA and DP go to sleep mode.

4.2 Touch Screen

The GOT815-834 uses the 5-wire analog resistive (flat front bezel type). There are the specification and driver installation which are listed below.

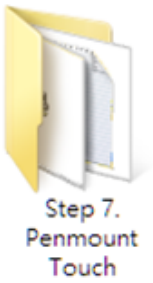
4.2.1 Specification

Touch Screen	5-wire Analog Resistive type
Touch Screen Controller	PenMount 6000 USB Touch Screen Controller IC
Communications	USB interface
Resolution	1024 x 1024
Power Input	5V
Power Consumption	Active: 24.6mA / Idle Mode: 13.4mA

4.2.2 Driver Installation- Windows 7/8.x

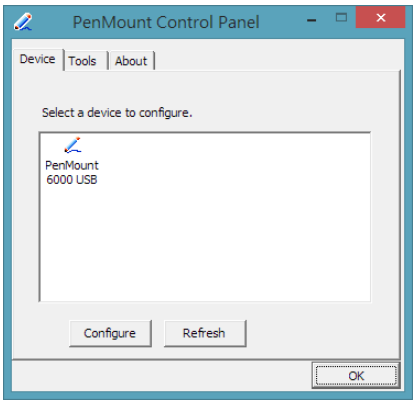
The GOT815-834 provides a touch screen driver that users can install it under the operating system Windows 7/8.x. To facilitate installation of the touch screen driver, you should read the instructions in this chapter carefully before you attempt installation.

1. Insert Driver CD and follow the path to select the "\Drivers\Step 7 - Touch".

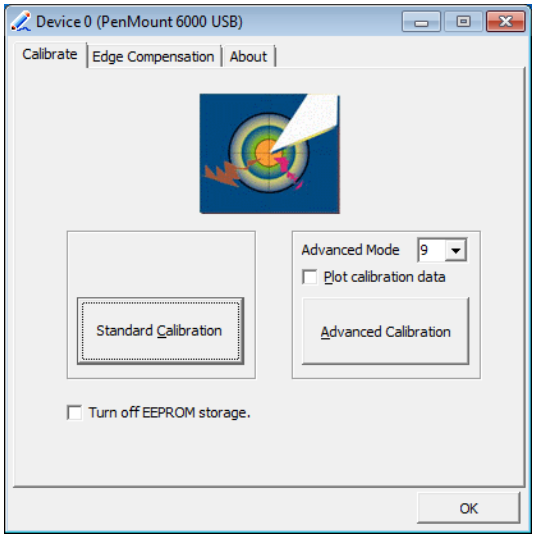


2. Follow the installing procedure and press OK.

3. Click Start menu and select "PenMount Utilties"; and then, a "PenMount Control Panel" pops out.

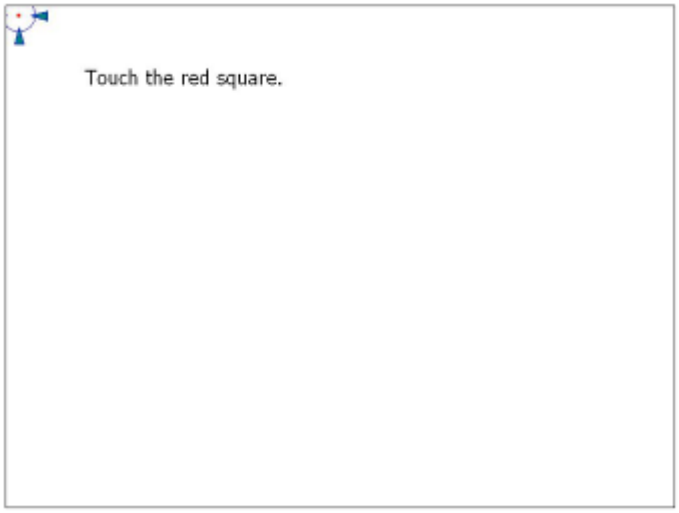


4. Select the "Standard Calibrate" tab.



5. Calibration:

To adjust the display with touch panel, click "Calibration" and follow the calibrate point to do calibration; there are five points on screen for calibration.



6. Press OK.

4.3 Embedded O.S.

The GOT815-834 provides the WES 7 and WE8S Embedded. The O.S. is supported devices which are listed below.

4.3.1 WES 7 & WE8S

Here are supported onboard devices:

- Onboard Multi I/O
- SATA HDD
- USB
- CRT/LCD display
- 10/100/1000 base-T Ethernet
- CFast™ or mSATA
- Onboard Audio
- Touch Screen

PenMount Touch screen

Before you can use and calibrate it, here is what you should do:

1. Set up Penmount touch device driver by executing C:\Penmount\ Windows 2000-XP V5.0\setup.exe. When the installation is finished, an icon "PM" appears on the Taskbar.
2. Calibrate Penmount touch by clicking on the "PM" icon, and the go on the calibration.
3. Restart the computer.

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